

ABSTRACT

A mass fluid flow sensor for determining the amount of fluid inducted into an internal combustion engine, for example, is disclosed. The mass fluid flow sensor includes an external intake fluid temperature element which improves the accuracy of the mass fluid reading. An external cold wire element is further provided which improves response time. The mass fluid flow sensor has an improved aerodynamic design which provides a lower system pressure drop. Moreover, the sensor is smaller and lighter and has fewer parts, thus providing better manufacturability. A molded one-piece isolated jet nozzle having a hot element disposed therein is included in the fluid sampling portion. Consequently, an improved lower internal flow passage pressure drop is achieved. Additionally, an improved signal to noise ratio, as well as a larger dynamic range is an advantageous consequence of the present invention. The present invention further provides improved electromagnetic interference performance.